LGAI Technological Center, S.A. (APPLUS) Campus UAB - Ronda de la Font del Carme s/n 08193 Bellaterra (Barcelona) T +34 93 567 20 00 www.applus.com





CERTIFICADO DE EXAMEN UE DE TIPO EU-TYPE EXAMINATION CERTIFICATE



No.

0370-4107-PPE/B

ORGANISMO NOTIFICADO Nº NOTIFIED BODY NUMBER	0370 - LGAI TECHNOLOGICAL CENTER (APPLUS)
SOLICITANTE APPLICANT	Huizhou Bowen Manufacturing Limited Xinnan 1st Road, Xianan Village, Yuanzhou Town, Boluo County, Huizhou City, Guangdong Province, P.R.China
FABRICANTE MANUFACTURER	Huizhou Bowen Manufacturing Limited Xinnan 1st Road, Xianan Village, Yuanzhou Town, Boluo County, Huizhou City, Guangdong Province, P.R.China

REGLAMENTO DE APLICACIÓN PARA DAR LA CONFORMIDAD / APPLICABLE REGULATION TO GIVE CONFORMITY:

REGLAMENTO (UE) 2016/425 SOBRE LOS EQUIPOS DE PROTECCIÓN INDIVIDUAL

REGULATION (EU) 2016/425 PERSONAL PROTECTIVE EQUIPMENT

PROCEDIMIENTO DE EVALUACIÓN DE LA CONFORMIDAD CONFORMITY ASSESSMENT PROCEDURE	Módulo // Module: B EXAMEN UE DE TIPO / EU TYPE EXAMINATION
IDENTIFICACIÓN DEL EPI (NÚMERO DE TIPO) IDENTIFICATION OF THE PPE (TYPE NUMBER)	Ref.: KAZE-01 Protective Respirator
NIVEL O NIVELES DE RENDIMIENTO O LA CLASE DE PROTECCIÓN DEL EPI PERFORMANCE LEVEL OR PROTECTION CLASS OF THE PPE	Esta media máscara está fabricada sólo para la protección del COVID 19 This filtering half mask is manufactured for COVID-19 protection only
NORMAS APLICABLES / APPLICABLE STANDARDS	PPE-R/02.075 version 2 Filtering half mask to protect against COVID-19
FECHA DE EMISIÓN / ISSUE DATE	27/07/2020
VALIDEZ HASTA / VALIDITY UNTIL	27/07/2021

El presente certificado se mantendrá vigente durante 1 año siempre que el producto descrito no sea modificado y cumpla los requisitos esenciales de salud y seguridad establecidos en el Reglamento (UE) 2016/425, de acuerdo con la recomendación de la Comisión Europea (EU) 2020/403 para su uso por parte del personal sanitario.

This certificate will remain valid for 1 year as long as the indicated product is not modified and fulfills the essential requirements of health and safety established in (EU) Regulation 2016/425, according to the recommendation 2020/403 for its use by healthware professionals.



Xavier Ruiz Peña Managing Director, Product Conformity B.U.

Este documento carece de validez sin su anexo técnico, cuyo número coincide con el del certificado. This document is not valid without its technical annex, whose number coincides with the number of certificate.

Puede comprobarse la validez de este certificado en nuestra página web / You can check the validity of this certificate into our website at https://apps.applus.com/microsites/microsites/FECIP/login



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Technical Annex Ed. 1 27/07/2020

ANEXO TÉCNICO TECHNICAL ANNEX

0370-4107-PPE/B

I. MODELOS INCLUIDOS EN EL CERTIFICADO

REFERENCES INCLUDED IN THIS CERTIFICATE

MARCA BRAND	KAZE
IDENTIFICACIÓN DEL EPI (NÚMERO DE TIPO) IDENTIFICATION OF THE PPE (TYPE NUMBER)	Ref.: KAZE-01 Protective Respirator
NIVEL O NIVELES DE RENDIMIENTO O LA CLASE DE PROTECCIÓN DEL EPI PERFORMANCE LEVEL OR PROTECTION CLASS OF THE PPE	Esta media máscara está fabricada sólo para la protección del COVID 19 This filtering half mask is manufactured for COVID-19 protection only
INFORME DE ENSAYO TEST REPORT	S20063004501E-R3 issued by Shenzhen NTEK Testing Technology Co., Ltd. (NTEK)



TEST REPORT

PPE-R/02.075 Version 2

Filtering Half Mask to Protect Against COVID-19

Report No: S20063004501E-R3

Product Name: Protective Respirator

Model(s): KAZE-01

Brand: KAZE

Sample Received Date: 🗼 Jun. 30, 2020

Testing Period: _____ Jun. 30, 2020~ Jul. 03, 2020

Client

Huizhou Bowen Manufacturing Limited Xinnan 1st Road, Xianan Village, Yuanzhou Town, Boluo County, Huizhou City, Guangdong Province, P.R.China

Manufacturer

Huizhou Bowen Manufacturing Limited
Xinnan 1st Road, Xianan Village, Yuanzhou
Town, Boluo County, Huizhou City, Guangdong
Province, P.R.China

Conditions:

The test report is effective only with both signature and specialized stamp, the result(s) shown in this report refer only to the sample(s) tested. Without written approval of NTEK, this report can't be reproduced except in full.

Compiled by:	Vaney	Reviewed by:	May	N. C.
Approved by:	Marketian	Date:	2020-07-24	N. Co.
Mar	rk Liao Authorized Signator	v of of the	A .	-0



Report No.: S20063004501E-R3 Page 2 of 9

Summary of assessment*

Clause	Sample quantity	Assessment
3.3 Visual inspection	A 120 3	NRq V
3.4 Packaging	FFF	Pass
3.5 Material	13.4	Pass
3.6 Cleaning and Disinfecting		NAp
3.7 Practical Performance	A 1,00 A	Pass
3.8 Finish of Parts	7 17 17	Pass
3.9 Penetration of filter material	6.47	Pass
3.10 Compatibility with skin	7 7 7	Pass
3.11 Carbon Dioxide Content of The Inhalation Air	3,0	Pass
3.12 Head harness	7 7 7	Pass
3.13 Field of vision	A 1/0 /	Pass
3.14 Exhalation Valve(s)	2 5 5	NAp
3.15 Breathing resistance	3 40	Pass
3.16 Demountable Parts	13	Pass

Key

NRq	The clauses were not requested.
Pass	Requirement satisfied.
Fail	Requirement not satisfied. Refer to the "Result details" section for more information.
NAs	Assessment not carried out.
NAp	Requirement not applicable.
NT NT	Requested but not tested due to early termination following failure.

^{*} Assessment relates only to those specimens which were tested and are the subject of this report.



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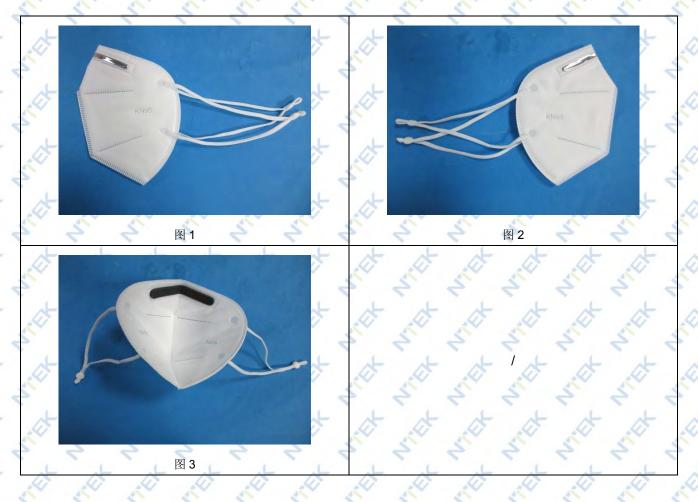
Product characteristics

Property Characteristic		
Model	KAZE-01	
Classification claimed	Protection against SARS-CoV-2 only	
Exhalation valve(s)	20 20 20 120 20 20	

Submission details

- Product	Quantity	Date received	Specimen No.
Protective Respirator	90	Jun. 30, 2020	1#~13#
1 Totalive respirator	+ .C+	Juli. 30, 2020	1111011

Photographs of the products tested



Shenzhen NTEK Testing Technology Co., Ltd. | Address: 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen 518126 P.R.China. | Tel: +86-755-36995508 | Fax: +86-755-36995505 http://www.ntek.org.cn Complaint Tel: +86-755-36995510 | Complaint E-mail: complaint@ntek.org.cn



Report No.: S20063004501E-R3 Page 4 of 9

Test Result

CO-ORDINATION OF NOTIFIED BODIES PPE Regulation 2016/425 RECOMMENDATION FOR USE (PPE-R/02.075 version 2) approved on 29 May, 2020 & COMMISSION RECOMMENDATION (EU) 2020/403 of 13 March, 2020

Clause 3.3 Visual inspection

(EN 149:2001+A1:2009 Clause 7.3 & 8.2)

Clause 3.5 Material

(EN 149:2001+A1:2009, Clause 7.5 modified & 8.2)

Clause 3.8 Finish of Parts

(EN 149:2001+A1:2009, Clause 7.8 & 8.2)

Clause 3.16 Demountable Parts

(EN 149:2001+A1:2009, Clause 7.18 & 8.2)

Test Requirement	Results	Comment
3.3 The visual inspection shall also include the marking and the information supplied by the manufacturer.	The clauses were not required.	NRq
3.5 Materials used shall be suitable to withstand handling and wear over the period for which the particle filtering half mask is designed to be used.	Comply	Pass
3.5 Any material from the filter media released by the air flow through the filter shall not constitute a hazard or nuisance for the wearer.	Comply	Pass
3.8 Parts of the device likely to come into contact with the wearer shall have no sharp edges or burrs.	No sharp edges or burrs	Pass
3.16 All demountable parts (if fitted) shall be readily connected and secured, where possible by hand	Comply	Pass

Clause 3.4 Packaging

(EN 149:2001+A1:2009 Clause 7.4)

Test Requirement	Results	Comment
Particle filtering half masks shall be offered for sale packaged	4	A 10 1
in such a way that they are protected against mechanical	Comply	Pass
damage and contamination before use.	* *	* *



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Clause 3.6 Cleaning and Disinfecting

(EN 149:2001+A1:2009, Clause 7.6 modified, 8.4 & 8.11)

Test Requirement	Results	Comment
If the particle filtering half mask is designed to be cleaned and	7 7 7	7, 7,
disinfected, the materials used shall withstand the cleaning and	* *	A .
disinfecting agents and procedures to be specified by the	10 10 1	0 10 1
manufacturer. Cleaning and disinfection method can be	5 5 5	4 4
accepted only if they are scientifically proved in peer reviewed	Not applicable	t at a
scientific publications effective against the SARS-CoV-2, or have	Not applicable (Not designed to	NAp
been recommended by European Centre for Disease Prevention	be re-usable)	NAP
and Control, ECDC. Testing shall be done in accordance with	be re-usable)	T ST S
8.4.	7, 7, 7,	4, 4,
With reference to 3.9, after cleaning and disinfecting the particle	* *	* *
filtering half mask shall satisfy the penetration requirement.	The state of	
Testing shall be done in accordance with 8.11	2 4 4	4 4

Clause 3.7 Practical Performance

(EN 149:2001+A1:2009, Clause 7.7 modified, & 8.4)

Clause 3.10 Compatibility with skin

(EN 149:2001+A1:2009, Clause 7.10 modified, & 8.4)

Clause 3.12 Head harness

(EN 149:2001+A1:2009, Clause 7.13 modified, & 8.4)

Clause 3.13 Field of vision

(EN 149:2001+A1:2009, Clause 7.14 & 8.4)

Test Requirement	Results	Comment
7.7 The particle filtering half mask shall undergo practical	10 10 10	1 1 1
performance tests under realistic conditions. These general tests	4 4 4	4 4
serve the purpose of checking the equipment for imperfections	15 15 1	× .0.
that cannot be determined by the tests described elsewhere in	2 2 2	2 2
this standard.	AL AL .	L 1
Requirement added : During the practical performance test, the	Sample 13#: No	
test subject should pay particular attention to the ability of the	imperfections	Pass
product to maintain a good faceseal. If the wearer observes that	impenections	4 4
a good faceseal is not maintained, they shall be instructed to	4 4 4	110
readjust the filtering half mask according to the user instructions.		
Should the test subject experience further difficulties with	15 15 1	F 45 .
maintaining a good faceseal during the practical performance	5 5 5	2 2
test, the filtering half mask shall be considered unsatisfactory.	* *	+ +



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	2 2 2	
7.10 Materials that may come into contact with the wearer's skin shall not be known to be likely to cause irritation or any other adverse effect to health.	Sample 13#: No irritation or any other adverse effect to skin.	Pass
7.13 The head harness shall be designed so that the filtering half mask can be donned and removed easily. The head harness shall be adjustable or self-adjusting and shall be sufficiently robust to hold the filtering half mask firmly in position.	Sample 13#: Comply	Pass
7.14 Field of vision should be subjectively assessed by the wearer in practical performance test of 8.4	Sample 13#: No obvious block to sight.	Pass

Clause 3.9 Penetration of filter material

(EN 149:2001+A1:2009, Clause 7.9.2 modified, & 8.11)

d d 0	Test Requirement	Results	Comment
The penetration of	the filter of the filtering half mask shall meet	4, 4, 4	111
the requirements F	FP2 of Table 1.	4 4 4	
Table	e 1- Penetration of filter material	AT AT A	
	Maximum penetration of test aerosol	4 4 4	L 2 L 5
Classification	Sodium chloride test 95 L/min	AT AT A	
Classification	%	(See Appended	4 4
* * /	max.	table 8.11)	Pass
FFP1	20	ALL TO S	1
FFP2	6	2 2 2	
FFP3	A A1 A A A	A A A	5 .0
7 7	2 2 2 2 2	2 2 2	2 3
A total of 6 sample	s of filtering half masks shall be tested with	* *	+ +
sodium chloride.		20 20 2	4 24
Penetration test ac	cording to 8.11 & EN 13274-7:	4 4 4	5 5
- for device without	cleaning and disinfection process:	A A .	J . C.
3 samples as rece	ved;	(See Appended	5
- for device with cle	eaning and disinfection process:	table 8.11)	# "# "
3 samples after on	e cleaning and disinfecting cycle according to	A TO Y	V 3.47
the manufacturer's	instruction.	5 5 5	4



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Exposure test according to 8.11 & EN 13274-7 with a specified	* * * *
mass of test aerosol of 120 mg:	
- for device without cleaning and disinfection process on:	(See Appended
3 samples as received;	(See Appended
- for device with cleaning and disinfection process on:	table 8.11)
3 samples after one cleaning and disinfecting cycle according to	at at at
the manufacturer's instruction.	PO PO PO PO PO

Appended Tal	ble 8.11	Penetratio	n of filter material	4 4 4	Pass
, 4,	7, 4,	Commis	Penetrat	ion (%)	4 4
Aerosol	Condition	Sample No.	Average in 30s after 3 min	Max. during exposure	Comment
et et	et et	1#	2.3	d 10 0	+ + .
- Zi	Z" Z" .	2#	2.5	2 2 2	7, 7,
Sodium	de not	3#	2.6	d 10 4	+ 4
chloride test	A.R.	4#	414	3.1	Pass
of of	at at	5#	t of ot	3.0	t ot
- 2	4 4	6#	212	3.2	7 7
Flow condition	ing: Single filter: 9	95.0 L/min, Li	imit: ≤6%.	of of a	* * *

Clause 3.11 Carbon Dioxide Content of The Inhalation Air

(EN 149:2001+A1:2009, Clause 7.12 & 8.7)

Test Requirement	Results	Comment
The carbon dioxide content of the inhalation air (dead space) shall	(See appended	Pass
not exceed an average of 1,0 % (by volume)	table 8.7)	1 433

Appended Table 8.7	Carbon	Dioxide Content of The Ir	nhalation Air	Pass
Condition	Sample No.	Result	4 4	Assessment
. 7. 7.	7#	0.32%	M-2 Z	7, 7,
As received	8#	0.32%	Mean value	Pass
The state of the	9#	0.31%	0.32%	



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Clause 3.14 Exhalation Valve(s)

(EN 149:2001+A1:2009, Clause 7.15, 8.2 & 8.9.1 & 8.3.4 & 8.8)

Test Requirement	Results	Comment
a) A particle filtering half mask may have one or more exhalation valve(s), which shall function correctly in all orientations.	No valves.	4 4
b) If an exhalation valve is provided it shall be protected against or be resistant to dirt and mechanical damage and may be shrouded or may include any other device that may be necessary for the particle filtering half mask to comply with 7.9.	No valves.	
c) Exhalation valve(s), if fitted, shall continue to operate correctly after a continuous exhalation flow of 300 l/min over a period of 30 s.	No valves.	NAp
(d) When the exhalation valve housing is attached to the face blank, it shall withstand axially a tensile force of 10N applied for 10 s.3 samples should be tested as received but for after one cleaning and disinfecting cycle according to the manufacturer's instruction	No valves.	- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Clause 3.15 Breathing resistance

(EN 149:2001+A1:2009, Clause 7.16 modified & 8.9)

4 4	Test Requ	irement	4 4 4	-	Results	Comment
The breathing resistan masks and shall meet	.4			4	310 310	ALIENT AL
* * *	Maximum	permitted res	sistance (mbar)	/	(See	*
Classification	Inhala	ition	Exhalation	14.0	appended table 8.9)	Pass
الم الم الم	30 L/min	95 L/min	160 L/min		table 6.9)	- 4
FFP2	0.7	2.4	3.0	10	19 19	19 1
Flow conditioning for valved particle filtering half masks:						
3 ones should be tested according to 8.3.4 of EN 149:2001 + A1:2009						
but as received except for device with cleaning and disinfection No valves. NAp						
process, after one cleaning and disinfecting cycle according to the						
manufacturer's instruct	tion.		A A	100	A A	20 3



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Appen	ded Table 8.9	at a	t at	Breathing	resistanc	et at	4	Pass
7,	7, 7,	Inhalation	n(mbar)	3 3	Exhalatio	n resistance	e(mbar)	2
Specimen	Condition	At 30	At 95	*	A A	t 160 L/min	*	*
, ii.	1	L/min	L/min	Α	В	C	D	E
10#		0.42	1.52	2.68	2.72	2.73	2.69	2.70
11#	A.R.	0.39	1.50	2.69	2.71	2.65	2.68	2.66
12#	4 4	0.39	1.48	2.64	2.66	2.67	2.63	2.68
Maximum	n permitted	0.7	2.4	*	*	3.0	*	*

Note:

A: facing directly ahead; B: facing vertically upwards; C: facing vertically downwards;

This test report displaces the original report No. S20063004501E-R2, and the original one was invalid since the date of this test report No. S20063004501E-R2 released.

****End of Report****

The test report is effective only with both signature and specialized stamp, the result(s) shown in this report refer only to the sample(s) tested. Without written approval of NTEK, this report can't be reproduced except in full.



Report No.: S20071602001E page 1 of 12

Test Report

Applicant: Huizhou Bowen Manufacturing Limited

Address: Xinnan 1st Road, Xianan Village, Yuanzhou Town, Boluo County, Huizhou

City, Guangdong Province, P.R.China

The following sample(s) was/were submitted and identified on behalf of the clien	ent as
--	--------

Product name: Protective Respirator

Model: NON-STERILE FOLD MASK

Trade mark: KAZE

Manufacturer: Huizhou Bowen Manufacturing Limited

Address: Xinnan 1st Road, Xianan Village, Yuanzhou Town, Boluo County, Huizhou

City, Guangdong Province, P.R.China

Claim level: FFP2
Sample quantity: 120 Pcs

Sample Received

Jul. 17, 2020

Testing Period:

Date:

Jul. 17, 2020~ Jul. 21, 2020

Test Requirement:

According to the requirement of the client, the test item(s) of the sample is according to the standard EN149:2001+A1:2009.

Test Result(s): Please refer to the following page(s)

Test Method: Please refer to the following page(s)

Compiled by:	1 meg	Reviewed by:	3:00	May	Ziel C
STOP STOP	Montelian	STATE STATE	Zill.	AND AND	25.4
Approved by:	A A A	Date:	4	2020-07-22	



Report No.: S20071602001E page 2 of 12

Summary of assessment*

Clause	Assessment
7.3 Visual inspection	t t NRq t
7.4 Packaging	Pass
7.5 Material	Pass
7.6 Cleaning and disinfecting	N.A.
7.7 Practical performance	Pass
7.8 Finish of parts	Pass
7.9.1 Total inward leakage	Pass
7.9.2 Penetration of filter material	Pass
7.10 Compatibility with skin	Pass
7.11 Flammability	Pass
7.12 Carbon dioxide content of the inhalation air	Pass
7.13 Head harness	Pass
7.14 Field of vision	Pass
7.15 Exhalation valve(s)	N.A.
7.16 Breathing resistance	Pass
7.17 Clogging	N.A.
7.18 Demountable parts	Pass

Kev

Pass	Requirement satisfied.
NRq	The clauses were not required.
Fail	Requirement not satisfied. Refer to the "Result details" section for more information.
N.A.	Assessment not carried out.

^{*} Assessment relates only to those specimens which were tested and are the subject of this report.



Report No.: S20071602001E page 3 of 12

Test Result

Respiratory Protective Devices — Filtering Half Masks to Protect against Particles — Requirements Testing, Marking

(EN 149:2001+A1:2009)

Clause 7.3 Visual inspection

Test Requirement	Results	Comment
Manting and the information of multiple by the manufacturer	The clauses	1, 1,
Marking and the information supplied by the manufacturer,	were not	NRq
requirements refer to clause 9 and clause 10.	required.	15 15

Clause 7.4 Packaging

(EN 149:2001+A1:2009 Clause 8.2)

Test Requirement	Results	Comment
Particle filtering half masks shall be offered for sale packaged	4 4 4	4 4
in such a way that they are protected against mechanical	Comply	Pass
damage and contamination before use.	1 1	S" S" S

Clause 7.5 Material

(EN 149:2001+A1:2009, Clause 8.2 & 8.3.1 & 8.3.2)

Test Requirement	Results	Comment
Materials used shall be suitable to withstand handling and wear over the period for which the particle filtering half mask is designed to be used.	Comply	Pass
After undergoing the conditioning described in 8.3.1 none of the particle filtering half masks shall have suffered mechanical failure of the face piece or straps.	Comply	Pass
When conditioned in accordance with 8.3.1 and 8.3.2 the particle filtering half mask shall not collapse.	Comply	Pass
Any material from the filter media released by the air flow through the filter shall not constitute a hazard or nuisance for the wearer.	Comply	Pass



Report No.: S20071602001E page 4 of 12

Clause 7.6 Cleaning and Disinfecting

(EN 149:2001+A1:2009, Clause 8.4 & 8.5 & 8.11)

Test Requirement	Results	Comment
If the particle filtering half mask is designed to be re-usable,		
the materials used shall withstand the cleaning and	2 2 2	2 2
disinfecting agents and procedures to be specified by the	Assessment not	* *
manufacturer.	carried out.	N.A.
With reference to 7.9.2, after cleaning and disinfecting the	carried out.	4 4
re-usable particle filtering half mask shall satisfy the	of of	t of a
penetration requirement of the relevant class.	T. T. T.	

Clause 7.7 Practical Performance

(EN 149:2001+A1:2009, Clause 8.4)

Test Requirement	Results	Comment
at at at at at at at	Sample 11#~12#:	
General:		7 147 1
a) head harness comfort	4 4 4	4 4
b) security of fastenings	No imperfections	t of a
c) field of vision	21 21 21	
d) any other comments reported by the wearer on request.		L .L
Walking Test:		
The subjects wearing normal working clothes and wearing	4, 4, 4,	5 5
the particle filtering half mask shall walk at a regular rate of 6	No imperfections	+ + ,
km/h on a level course. The test shall be continuous, without	No imperiections	
removal of the particle filtering half mask, for a period of 10		Pass
min. A A A A A A	D D A	7 1 435
Work Simulation Test:	7, 7, 7,	£' £'
a) walking on the level with headroom of (1.3 \pm 0.2)m for 5min	* * *	+ +
b) crawling on the level with headroom of (0.7 ± 0.05) m for	A 14 18	
5min S	4 4 4	4 4
c) filling a small basket (see Figure 1, approximate volume =	No imperfections	t at a
8 L) with chippings or other suitable material from a hopper	21, 21, 21	3 3
which stands 1.5 m high and has an opening at the bottom to	at at	+ +
allow the contents to be shovelled out and a further opening	A A A	
at the top where the basket full of chippings is returned.	5 5 5	4 4



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Clause 7.8 Finish of Parts

EN 149:2001+A1:2009, Clause 8.2)

Test Requirement	Results	Comment
Parts of the device likely to come into contact with the wearer	No sharp edges or	Pass
shall have no sharp edges or burrs.	burrs	Pass

Clause 7.9.1 Total Inward Leakage

(EN 149:2001+A1:2009 Clause 8.5)

Test Requirement	Results	Comment
For particle filtering half masks fitted in accordance with the		
manufacturer's information, at least 46 out of the 50 individual	5. 5.	4 4
exercise results (i.e. 10 subjects x 5 exercises) for total inward	* * /	4 4
leakage shall be not greater than:	1 11 11	
25% for FFP1	4 6	4 4
11% for FFP2	Detail refer to	Popp
5% for FFP3	Appendix 1	Pass
and, in addition, at least 8 out of the 10 individual wearer arithmetic	+ +	+ +
means for the total inward leakage shall be not greater than:	O AU A	
22% for FFP1	5 5	4 4
8% for FFP2	of of o	t at
2% for FFP3	317 31	317

Appendix 1: Summarization of Test Data

4	4	Normal	Head	Head	Speak	Normal	Mean
Sample	Condition	Breathing	Side/Side	Up/Down	Loudly	Breathing	
31	31	(%)	(%)	(%)	(%)	(%)	(%)
1#	A.R.	2.3	2.8	2.8	3.1	2.6	2.72
2#	A.R.	5.4	5.2	6.3	8.8	7.4	6.62
3#	A.R.	3.3	3.9	3.7	4.2	3.2	3.66
4# 📈	A.R.	4.7	5.3	5.3	6.1	4.9	5.26
5#	A.R.	2.9	3.4	3.5	3.8	3.0	3.32
6#	T.C.	40	4.5	4.4	5.2	4.6	4.54
7#	T.C.	5.8	6.3	6.1	6.7	6.0	6.18
8#	T.C.	4.7	5.6	5.0	6.0	5.5	5.36
9# 🙏	T.C.	5.1	5.7	5.6	6.2	6.1	5.74
10#	T.C.	3.6	4.4	4.0	4.8	3.9	4.14
	1# 2# 3# 4# 5# 6# 7# 8#	1# A.R. 2# A.R. 3# A.R. 4# A.R. 5# A.R. 6# T.C. 7# T.C. 8# T.C.	Sample Condition Breathing (%) 1# A.R. 2.3 2# A.R. 5.4 3# A.R. 3.3 4# A.R. 4.7 5# A.R. 2.9 6# T.C. 4.0 7# T.C. 5.8 8# T.C. 4.7 9# T.C. 5.1	Sample Condition Breathing (%) Side/Side (%) 1# A.R. 2.3 2.8 2# A.R. 5.4 5.2 3# A.R. 3.3 3.9 4# A.R. 4.7 5.3 5# A.R. 2.9 3.4 6# T.C. 4.0 4.5 7# T.C. 5.8 6.3 8# T.C. 4.7 5.6 9# T.C. 5.1 5.7	Sample Condition Breathing (%) Side/Side (%) Up/Down (%) 1# A.R. 2.3 2.8 2.8 2# A.R. 5.4 5.2 6.3 3# A.R. 3.3 3.9 3.7 4# A.R. 4.7 5.3 5.3 5# A.R. 2.9 3.4 3.5 6# T.C. 4.0 4.5 4.4 7# T.C. 5.8 6.3 6.1 8# T.C. 4.7 5.6 5.0 9# T.C. 5.1 5.7 5.6	Sample Condition Breathing (%) Side/Side (%) Up/Down (%) Loudly (%) 1# A.R. 2.3 2.8 2.8 3.1 2# A.R. 5.4 5.2 6.3 8.8 3# A.R. 3.3 3.9 3.7 4.2 4# A.R. 4.7 5.3 5.3 6.1 5# A.R. 2.9 3.4 3.5 3.8 6# T.C. 4.0 4.5 4.4 5.2 7# T.C. 5.8 6.3 6.1 6.7 8# T.C. 4.7 5.6 5.0 6.0 9# T.C. 5.1 5.7 5.6 6.2	Sample Condition Breathing (%) Side/Side (%) Up/Down (%) Loudly (%) Breathing (%) 1# A.R. 2.3 2.8 2.8 3.1 2.6 2# A.R. 5.4 5.2 6.3 8.8 7.4 3# A.R. 3.3 3.9 3.7 4.2 3.2 4# A.R. 4.7 5.3 5.3 6.1 4.9 5# A.R. 2.9 3.4 3.5 3.8 3.0 6# T.C. 4.0 4.5 4.4 5.2 4.6 7# T.C. 5.8 6.3 6.1 6.7 6.0 8# T.C. 4.7 5.6 5.0 6.0 5.5 9# T.C. 5.1 5.7 5.6 6.2 6.1



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Facial Dimension:

Subject	Length of Face	Width of Face	Depth of Face	Width of Mouth
Oubject	(mm)	(mm)	(mm)	(mm)
Zhai	135	165	125	53
Wu	112	172	118	55
Zhang	120	175	115	57
Yang	125	165	120	55
Yan	104	163	115	52
Chen	111	137	121	53
Lei	112	138	119	54
He o	114	127	121	51
Zhong	105	135	103	52
JE JE N	109	123	109	60

Clause 7.9.2 Penetration of Filter Material

(EN 149:2001+A1:2009, Clause 8.11 & EN 13274-7:2019)

	Test Requirement	Results	Comment	
The penetration of t	the filter of the particle filt			
meet the requireme	ents of the following table	4 4 4	4. 4.	4. 4.
d d	Maximum penetrat	ion of test aerosol	et let le	y
4. 4.	Sodium chloride test	Paraffin oil test	4. 4.	4 4
Classification	95 L/min	95 L/min	Detail refer to	t _ ot .
" Zi' Zi'	%	%	Appendix 2	Pass
	max.	max.		
FFP1	20	20	OF 15 1	F 15 1
FFP2	2 62 2	2 6 2 2	7, 7,	4 4
FFP3	t	* * *	* *	七 大
the the	- 14 K		A THE THE	1 1



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Appendix 2: Summarization of Test Data

Penetration of filter material

* *	* *	ati	Penetrati	ion (%)	Assessment
Aerosol Condition	Sample No.	Average in 30s after 3 min	Max. during exposure	411 4	
	10 10	13#	1.2		
* - *	A.R.	14#	1.3	777	+ + +
40	10 10	15#	1.2		
to t	* *	22#	L 1.1	474	+ +
Sodium chloride test	S.W.	23#	1.2		314 3
* *	*	24#	1.2	* / *	t t
30	314 314 .	25#	W1 W	2.0	314 3
* *	M.S. + T.C.	26#	+ + +	2.2	+ +
4 34	3° 3°	27#		2.3	31 3
太太	* *	16#	2.7	* 1 *	Pass
" Zi" .	A.R.	<u>^</u> 17#	3.1		
水水	* *	18#	2.6	* 1 *	大、大
~	zi* zi* .	19#	2.9		21 21 Z
Paraffin oil test	S.W.	20#	2.6	* 1 * 1	大、大
100.1		21#	2.9		21 2°
ot ot	4 4	28#	+ + +	5.2	+ 4
21	M.S. + T.C.	29#	S"1 S"	5.3	2" 2"
太太	* *	30#	+ 4 +	5.2	t ot
2	Flov	v conditionin	g: 95.0 L /min	Ji' Ji' Ji	21 2

Clause 7.10 Compatibility with Skin

(EN 149:2001+A1:2009, Clause 8.4 & 8.5)

-	Test Requirement	Results	Comment
	Materials that may come into contact with the wearer's skin shall	No irritation or any	0
100	not be known to be likely to cause irritation or any other adverse	other adverse effect	Pass
ř.	effect to health.	to health	



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Clause 7.11 Flammability

(EN 149:2001+A1:2009, Clause 8.6)

Test Requirement	Results	Comment
The material used shall not present a danger for the wearer and	7, 7, 7,	7, 7,
shall not be of highly flammable nature when tested, the particle	Detail refer to	Pass
filtering half mask shall not burn or not to continue on burn for	Appendix 3	Pass
more than 5 s after removal from the flame.	4 4 4	4 4

Appendix 3: Summarization of Test Data

Flammability

0	Condition	Sample No.	Result	Assessment
	4. 4.	31#	Flammable, burn for no	4. 4. 4.
x	A.R.	31#	more than 5 s	* * *
~	100	32#	Nonflammable	Pass A
-	TO	33#	Nonflammable	4 4 4
4	T.C.	34#	Nonflammable	OF 15 15 1

Clause 7.12 Carbon Dioxide Content of The Inhalation Air

(EN 149:2001+A1:2009, Clause 8.7)

Test Requirement	Results	Comment
The carbon dioxide content of the inhalation air (dead space)	Detail refer to	Pass
shall not exceed an average of 1.0 % (by volume)	Appendix 4	Pass

Appendix 4: Summarization of Test Data

Carbon Dioxide Content of The Inhalation Air

Condition	Sample No.	Result	3, 3,	Assessment
* * *	35#	0.19%	Mean value	4 4
A.R.	R. 36# 0.23%	0.23%		Pass
4 4	37#	0.23%	0.22%	4 4



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Clause 7.13 Head Harness

(EN 149:2001+A1:2009, Clause 8.4 & 8.5)

Test Requirement	Results	Comment
The head harness shall be designed so that the particle filtering half mask can be donned and removed easily.	Comply	4 4
The head harness shall be adjustable or self-adjusting and shall be sufficiently robust to hold the particle filtering half mask firmly in position and be capable of maintaining total inward leakage requirements for the device.	Comply	Pass

Clause 7.14 Field of Vision

(EN 149:2001+A1:2009, Clause 8.4)

Test Requirement	Results	Comment
The field of vision is acceptable if determined so in practical	Comply	Pass
performance	Comply	1 435

Clause 7.15 Exhalation Valve(s)

(EN 149:2001+A1:2009, Clause 8.2 & 8.9.1 & 8.3.4 & 8.8)

Test Requirement	Results	Comment
a) A particle filtering half mask may have one or more exhalation valve(s), which shall function correctly in all orientations.	Assessment not carried out.	\$ \$
b) If an exhalation valve is provided it shall be protected against or be resistant to dirt and mechanical damage and may be shrouded or may include any other device that may be necessary for the particle filtering half mask to comply with 7.9.	Assessment not carried out.	N.A.
c) Exhalation valve(s), if fitted, shall continue to operate correctly after a continuous exhalation flow of 300 l/min over a period of 30 s.	Assessment not carried out.	7. C.
(d) When the exhalation valve housing is attached to the face blank, it shall withstand axially a tensile force of 10N applied for 10 s.	Assessment not carried out.	- 10t - 25



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Clause 7.16 Breathing Resistance

EN 149:2001+A1:2009, Clause 8.9)

d d d	Test Requi	rement	D D	2	Results	Comment	É
The penetration of the	2 2	2 2					
meet the requirements	s of the following	ng table.	* *	_	+ + +	- *	
	Maximum pe	100	344 344	3 3	(
Classification	Inhalation		fication Inhalation Exhalation	1	Detail refer to	- 4	
0 10 10	30 L/min	95 L/min	160 L/min	14	Appendix 5	Pass	<
FFP1	0.6	2.1	3.0	-	5 5	4 4	
FFP2	0.7	2.4	3.0	2		A 1	2
FFP3	1.0	3.0	3.0	30	7, 7,	2 2	
A- A- A-	1	L 1	1 1 N	` ^	- ~ ~ ~	- 1	,

Appendix 5: Summarization of Test Data

4	- 4	Inhala	tion	.0	Exhalatio	n resistance	e(mbar)	4
Specimen	Condition	At 30	At 95	7 4	A	t 160 L/min	5 .	7, 7,
* 4	- *	L/min	L/min	A	В	ナc イ	D	<u>/</u> € /
38#	4 4	0.5	2.1	2.4	2.4	2.4	2.4	2.4
39#	A.R.	0.5	2.2	2.3	2.3	2.3	2.3	2.3
40#		0.5	2.1	2.5	2.5	2.5	2.5	2.5
41#	4. 4.	0.5	2.2	2.5	2.6	2.5	2.5	2.5
42#	S.W.	0.5	- 2.2	2.5	2.6	2.6	2.5	2.5
43#		0.5	2.2	2.5	2.5	2.5	2.5	2.5
44#	-	0.5	2.3	2.5	2.5	2.5	2.5	2.5
45#	T.C.	0.5	2.3	2.5	2.5	2.5	2.5	2.5
46#	4 4	0.5	2.3	2.5	2.5	2.5	2.5	2.5
/		/	/	/	/	/	/	/
/	F.C.	/	/	/	/	/	/	/
/		/	/	/	/	/	/	/

A: facing directly ahead; B: facing vertically upwards; C: facing vertically downwards; D: lying on the left side; E: lying on the right side



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Clause 7.17 Clogging

(EN 149:2001+A1:2009, Clause 8.9 & 8.10)

0 0 0	Test Requirement	7 0 0	/ Results /	Comment
Clau	se 7.17.2 Breathing res	istance	2 2	£ £
L Valve	* * 1	- *		
After clogging the in	4 4 4	14 1		
mbar, FFP2: 5 mbar,	Assessment	4 4		
exhalation resista	not carried	N.A.		
2 2	out.	2 2		
	ess particle filtering half	A- A-	A	- 4
7 7 7	nhalation and exhalation		Q Q Q	ALC: N
exceed: FFP1: 3 m	bar, FFP2: 4 mbar, FFF	P3: 5 mbar at 95L/min	4 4	4 4
* * *	continuous flow	* * * *	st st st	- 2
	Test Requirement		Results	Comment
Clause 7	7.17.3 Penetration of filt	er material		
All types (valved and v	valveless) of particle filter	ering half masks claimed	0 0 0	4
to meet the clogging	requirement shall also	meet the requirements.	4. 4.	4. 4.
d d d	Maximum penetrati	ion of test aerosol	of at a	t. ot .
2 2	Sodium chloride	Paraffin oil test	Assessment	2 2
Classification	test 95 L/min	95 L/min	not carried	N.A.
0 14 14	%	% %	out.	19 1
4 4	max.	max.	4 4	4 4
FFP1	20 0	20	D D D	4
FFP2	6	6	2 2	3 3
FFP3	1	4		
		طہ طہ حا		- 1

Clause 7.18 Demountable Parts

(EN 149:2001+A1:2009, Clause 8.2)

Test Requirement	Results	Comment
All demountable parts (if fitted) shall be readily connected and	Comply	Poss F
secured, where possible by hand	Comply	Pass



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Sample photo(s):



Fig.1/



Fig.2

****End of Report****

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